

**REMARKS**

Upon entry of the present amendment, claims 1-21 will remain pending in the above-identified application, with claims 1-6 and 13-21 standing ready for further action on the merits, and remaining claims 7-12 being withdrawn from consideration based on an earlier restriction requirement of the Examiner.

New claims 19-21 have been added. Newly added claims 19-20 find support at page 11, lines 11-14 of the original specification, and newly added claim 21 finds support at page 11, lines 27-30 of the original specification.

It is also noted that newly added claims 19-21 recite content from Amendments under Article 34 of the PCT, which were filed with the USPTO when the instant application entered the national phase, but which Article 34 amendments were not apparently previously considered by the USPTO.

The specification has also been amended to provide a new title to the invention, which finds support in the application as originally filed.

Accordingly, the present amendments do not introduce new matter into the application as originally filed. As such entry of the instant amendment and favorable action on the merits is earnestly solicited at present.

***Specification Amendment***

The title of the invention is objected to because it is not descriptive. Applicants have herein amended the title to read as follows (*such that withdrawal of the rejection is required at present*):

“Negative Electrode for Lithium Secondary Battery Using Graphite as Negative Active Material, Method for Manufacturing the Same, and Lithium Secondary Battery Using the Same.”

***Claim Rejections under 35 U.S.C. § 103(a)***

Claims 1, 6, 13, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Taniguchi et al.** (JP 2001-135304, machine translation) in view of **Moriguchi et al.** (US 6,576,369).

Claims 2 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Taniguchi et al.** and **Moriguchi et al.** as applied to claims 1 and 13 above, and further in view of **Mabuchi et al.** (US 6,156,432).

Claims 6 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Taniguchi et al.** and **Moriguchi et al.** as applied to claims 1 and 13 above, and further in view of **Koyama et al.** (US 2004/0101756).

Claims 4 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Taniguchi et al.** and **Moriguchi et al.** as applied to claims 1 and 13 above, and further in view of **Sheem et al.** (US 2004/0214087).

Claims 3 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Taniguchi et al.** and **Moriguchi et al.** as applied to claims 1 and 13 above, and further in view of **Takami et al.** (US 5,312,611).

Reconsideration and withdraw of each of the above rejections is respectfully requested based on the following considerations.

***Legal Standard for Determining Prima Facie Obviousness***

MPEP § 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17,

148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

*Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP § 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). Exemplary rationales that may support a conclusion of obviousness include:

- (a) *combining prior art elements according to known methods to yield predictable results;*
- (b) *simple substitution of one known element for another to obtain predictable results;*
- (c) *use of known technique to improve similar devices (methods, or products) in the same way;*
- (d) *applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;*
- (e) *“obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success*
- (f) *known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other*

*market forces if the variations are predictable to one of ordinary skill in the art;*

- (g) *some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.*

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. See MPEP § 2143.03.

*Distinctions over the Cited Art*

The USPTO appears to assert that the cylindrical graphite carbon fiber of **Taniguchi et al.** (JP 2001-135304) is identical or equivalently similar to the spherical or elliptical graphite A of the present invention. For example, page 4, first paragraph, of the outstanding office action states as follows:

*Regarding claim 1, Taniguchi discloses a lithium ion secondary battery which is comprised of **cylindrical (spherical)** graphite carbon fibers with diameters from 5 to 50 microns, and scale-like (flat) graphite powder from 0.1 to 30 microns [Abstract] but is silent towards the sizes of the crystallites of the graphite and the tap density. (emphasis added)*

However, in response to this assertion, it is submitted that cylindrical graphite carbon fiber and spherical or elliptical graphite are completely different from each other regarding their shapes. For example, if cylindrical graphite carbon fiber were identical or similar to spherical or elliptical graphite A of the present invention, then it should also follow that the swelling or shrinking of the cylindrical fiber should be three-dimensional like that of spherical or elliptical graphite. However, this is not true, as evidenced by the cited **Taniguchi et al.** JP 2001-135304 reference, where in paragraph [0022] thereof, it contains the following description:

*“...the swelling or shrinking of the cylindrical graphite carbon fiber is two-dimensional, while the swelling or shrinking of the scale-like graphite powder is one-dimensional.” (emphasis added)*

Accordingly, if one of ordinary skill in the art were to assumed (*as the USPTO has apparently assumed*) that the cylindrical graphite carbon fiber of **Taniguchi et al.** would have a shape identical or equivalently similar to the shape of the spherical or elliptical graphite A of the instant invention, their assumption would be incorrect.

As such, the USPTO is respectfully requested to reconsider its initial assumption at page 4, first paragraph, of the office action that cylindrical and spherical or elliptical graphite are identical or equivalently similar to each other, since they are not identical or equivalently similar to each other.

The above-noted distinction between cylindrical and spherical or elliptical graphite clearly shows that the spherical or elliptical graphite A recited in instantly pending claims 1 and 13 is not taught or described by **Taniguchi et al.** (*or in any of the remaining cited art references being applied by the USPTO against the pending claims*), and therefore all of the claimed elements recited in the instantly pending claims are not found in the cited art of record.

Because the cited art of record does not provide for, teach or otherwise disclose each of the limitations found in pending claims 1-6 and 13-21, it follows that each of the outstanding 35 U.S.C. § 103(a) rejections must be withdrawn.

It is also noted that since the cited art fails to provide any reason or rationale to those of ordinary skill in the art that would allow them to arrive at the instant invention as claimed, the instantly claimed invention is also nonobvious over the cited art of record for this reason.

**CONCLUSION**

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of the pending claims 1-6 and 13-21 is allowable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey, Reg. No. 32,881 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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